Work Order			*78024*							Page 1		
Item ID: D Revision ID:	212-664-101		Accept	*N900	040	100)*	Setup Sta	I Z	S1*		
Item Name: C	rosstube Fwd							Sto	^p *N	S2*		
Start Date: 23	3/12/2011 Start Qty: 1.0	00. *1*		Cust Item 1	D:							
Required Date: 17	7/01/2012 Req'd Qty: 1.0	⁰⁰ *1*		Customer:								
Reference:		•										
Approvals:	Process Plan: MLJ	Date: 11 2 \ 7	}} Tooling:	D	ate:		I	Run Sta	171	R1*		
(QC:	Date:	SPC (Y/N):	D:	ate:			Sto	[▫] *N	R2*		
Sequence ID/ Work Center ID	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp		
Draw Nbr	Revision Nbr									.		
D212-664-141	Rev D (DEO)											
100	DOCUMENT CON	NTROL XX	0.00		— <i>-</i>		20					
100 DC	3.6		0.00				_ 7	1 100 1	NI CZ	12-1-		
Document Control	Photoc	copy bluefile and create labels a	s per PPP D212-664-101	CHG005 \(\) (\(7\)	local			•		1		
110	Pick Kit		0.00		.2	r R						
110 Packaging	Packaging Memo		0.00		/V	0		-/2-2	8'			
Packaging												
	~											
120 '			0.00									
120 CNC Bend 2		INE - CROSSTUBES	0.00		Ju	رر		1-12	-28			
CNC Bend 2 CNC Alpha 160 Bender	Memo	ube as per Dwg D212-664-141				MA			•			

Dart Ae	r <u>osp</u> ace Lt	d								^
W/O:			WC	RK ORDER CHANG	iES					
DATE	STEP	PR	OCEDURE CHAI	NGE	ı	Зу	Date	Qty	Approval Chief Eng / Prod Mgr	Approva QC Inspector
<u> </u>										-
Dout No.		DAD #-	Fault Cata		NCD	Vaa	No. DO	A.	Deter	
Part No		PAR #:								
	neso	olution:		ER NON-CONFORM					Date: _	
NCR:			AIVCE (') 					
DATE	STEP	Description of NC						cation		Approval
		Section A	Initial Chief Eng	Action Description Chief Eng		Date	Sect	ion C	Chief Eng	QC Inspector

Work Order ID 78024 December-23-11 10:04:58 AM				*78024*							Page 2			
Item ID: Revision ID: Item Name: Start Date:	D212-664-10 Crosstube Fwo 23/12/2011		0 *1 *	Accept	*N900040100*			N *	* Setup Start Stop			S1* S2*		
Required Date: Reference:		Req'd Qty: 1.00	•		Customer:									
Approvals:		in:				ate:			Run	Start Stop		R1* R2*		
Sequence ID/ Work Center I 130 *130* QC Quality Control	D	Operation Description QC15- Crosstube Di	mensional Check	Set Up/ Run Hours 0.00	Tool ID	Tool#	Plan Code	Accept Qty	Rejo Qty		Reject Number	Insp. Stamp		
*140 *140 * Crosstubes Crosstubes		DT8549 2-Ream DT8548 to ensur	hole to finish size in tube & DT8549.Check dimer e alignment with saddle h		er QSI 10 sing drill Jig es on both cuffs,				10	_		//-/2-2:		
		4-Debu		vibrating stylus as per Dwg E amage. Repair damage within	,	ΜO		//-	12-	29				

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Dart Ae	rospace L	td		*				
W/O:			W	ORK ORDER CHANG	ES			
DATE	STEP	PR	OCEDURE CHA	NGE	Ву	Date Qty	Approval Chief Eng / Prod Mgr	Approva QC Inspecto
Part No	:	PAR #:	Fault Cate	gory:	NCR: Yes	No DQA:	Date: _	
	Resc	olution:	Dispositio	n:	_ QA: N/C CI	osed:	Date: _	·
NCR:		,	WORK ORD	ER NON-CONFORMA	NCE (NCF	R)		
DATE	STEP	Description of NC Section A	Initial Chief Eng	Corrective Action Section Action Description Chief Eng	on B Sign & Date	Verification Section C	Approval Chief Eng	Approva QC Inspecto

1	Work Order ID 78024 December-23-11 10:04:58 AM			*78024*							4	Page 3
Îtem ID: Revision ID:	D212-664-1	01		Accept	*N900	040	100)*	Setup		*N	S1*
Item Name:	Crosstube Fw	d								Stop	*N	S2*
Start Date: Required Date	23/12/2011 e: 17/01/2012	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item I Customer:	D:						
Reference:			•									
Approvals:	Process Pla	ın:	Date:	Tooling:	Da	ıte:			Run	Start	!//	R1*
	QC:		Date:	SPC (Y/N):	Da	ıte:				Stop	*N	R2*
Sequence ID/ Work Center	ID	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Rej Qty		Reject Number	Insp. Stamp
150		Crosstubes Chemical Co	nversion	0.00								
150 HandFXtube		Memo		0.00		N	5		1/-	12-	29	
Hand Finishing Cr	rosstubes	Chemical Co	onversion Coat within 24	hours of bending and drilling	ıg							
160		QC5- Inspect part compl	eteness to step on W/O	0.00				_				
160 QC Quality Control		Memo		0.00	ີ -			(40 <u></u>				,

0.00

0.00

111-12-29

170

170 Outsource2

Outsource process - NDT

Outsource process - NDT per QSI038 4.1

Liquid Penetrant Inspection as per QSI 038
Issue P/O:
LPI as per ASTM 1417 Level 2
Attach copy of NDT results to work order

Memo

Dart Aerospace Ltd

W/O:										
DATE	STEP	PR	OCEDURE CH	IANGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
						:				
					:					
Part No	:	PAR #:	Fault Ca	tegory:	NCI	R: Yes	No DQ	A:	Date: _	******
	Resolution:		Disposit	ion:	QA	N/C CI	osed:		Date: _	
NCR:	ICR:			DER NON-CONFORM	MANCE	(NCR)			
DATE	OTER	Description of NC	Description of NC Initial				_ Verific	cation	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	n	Sign & Date		on C	Chief Eng	QC Inspector
									:	
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1										

Work Order ID 78024 December-23-11 10:04:58 AM			·			Page 4					
Item ID: D212-664-101 Revision ID: Item Name: Crosstube Fwd				Accept	*N900	040	100) *	Setup Star Stop	11	IS1* IS2*
Start Date: Required Date: Reference:	23/12/2011 17/01/2012	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item I Customer:	D:				•	
Approvals:	Process Pla	in:	Date:	Tooling: SPC (Y/N):		ate:		1	Run Star Stop	, /	JR1* JR2*
Sequence ID/ Work Center II 180 *180* Packaging Packaging)	Operation Description Receive & Inspect for Da Packaging Memo Ensure copy	mage & Mat'l Certs of NDT results attached	Set Up/ Run Hours 0.00 0.00 to work order.	Tool ID	Tool#	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. r Stamp

QC5- Inspect part completeness to step on W/O

0.00

190

Memo

0.00

Sulvel29

Quality Control

Inspect for damage & ensure results are as per Dwg D212-664-141

D	ar	t /	4	er	os	g	ac	е	Ltd	

W/O:			V	GES					
DATE	STEP	PRO	CEDURE CI	HANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
									2
							ļ		·
Part No	•	PAR #:	Fault Ca	itegory:	NCR: Yes	No DQ	A:	Date: _	
	R	esolution:	Disposit	tion:	QA: N/C (Closed:		Date: _	
NCR:		V	ORK OR	DER NON-CONFORM	IANCE (NC	R)			
DATE	STEP	Description of NC		Corrective Action Secondary Action Description	ction B Sign	Verific	cation	Approval	Approval
DAIL	SILF	Section A	Section A Initial Action De Chief Eng Chief			Section C		Chief Eng	QC Inspector
					:				
						·			
						:			
:									

Work Ord December-23-1		•		*780	124*						Pag
Item ID: Revision ID:	D212-664-1	01		Accept	*N900	040	100)* 9	Setup Star	ı	S1*
Item Name:	Crosstube Fw	⁄d							Stop	*N	S2*
Start Date: Required Date	23/12/2011 : 17/01/2012	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item I	D:					
Reference:			•								
Approvals:	Process Pla	an:	Date:	Tooling:	D	ate:		F	Run Star	17	R1*
	QC:		Date:	SPC (Y/N):	D	ate:			Stop	` *N	R2*
Sequence ID/ Work Center I	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
200		Spray Painting per QSI005	4.2	0.00					- •		•
200		SprayPaint									
SprayPaint		Memo		0.00							
Spray Painting		1-Prime inside	and outside crosstub	e as per QSI 005 4.2							
		2-Paint outside OSI 005 4.2	e crosstube as per DE	O D212-667-141 with Whit	e Imron as per						

QC14- Inspect Spray Paint

PRIME: Start Time: 7:30 Fininsh Time: 9:30

PAINT: Start Time: 7:15 Finish Time: 9:30

0.00

0.00

Quality Control

Then, Wrap in plastic bag to protect from scratches

Q \$ 12.01.04

Page 5

NS1

NS2

NR1

NR2

Dart Ae	<u>ros</u> pace	Ltd							, ,
W/O:			WC	ORK ORDER CHANGES					
DATE	STEP	PROC	CEDURE CHA	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approva QC Inspecto
							-		-
Part No	:	PAR #:	_ Fault Cate	gory: N	CR: Yes	No DQA :		Date: _	
		esolution:							
NCR:		W	ORK ORD	ER NON-CONFORMANO	E (NCR	1)			
DATE	STEP	Description of NC Section A	initial Chief Eng	Corrective Action Section B Action Description Chief Eng	Sign &	Verifica Section		Approval Chief Eng	Approva QC Inspecto
				·					

Work Order ID 78024 December-23-11 10:04:58 AM				*780		Page 6					
Îtem ID: Revision ID:	D212-664-10	01		Accept	*N900	<u>040</u>	100*		Setup St	art *\	JS1*
Item Name:	Crosstube Fw	d							St	op *	JS2*
Start Date:	23/12/2011	Start Qty: 1.00	*1	*	Cust Item I	D:				_	
Required Date: Reference:	17/01/2012	Req'd Qty: 1.00	*1	*	Customer:						
Approvals:	Process Pla	n:	Date:	Tooling:	Da	ate:		I		art *	JR1*
	QC:		Date:	SPC (Y/N):	Da	ate:	 _		St	ob */	JR2*
Sequence ID/ Work Center II	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Ac Code Q	ccept	Reject Qty	Reject Numbe	Insp. r Stamp
220		Crosstubes		0.00							
Crosstubes		Memo		0.00						<u> </u>	
Crosstubes		clean the are 2-Install supp A/R Pros	a with 4105S wash '	port and crosstube with 400 gr n' wipe 00 per DSI9563 and QSI 015		12-01-	- 10				
230		QC6- Inspect dimensions	to drawing	0.00							
230 QC Quality Control		Мето		0.00 517	clouly						
240		Pick Kit		0.00					, 1	\bigcap	
* 24 0* Packaging		Memo		0.00				12	li <u>lli -</u>	1	

Memo

Packaging

_Dart_Ae	rospace	Ltd						; ·
W/O:			WO	RK ORDER CHANGES	3			· - · · · · · · · · · · · · · · · · · ·
DATE	STEP	PR	OCEDURE CHAI	NGE	Ву	Date Qty	Approval Chief Eng / Prod Mgr	Approva QC Inspecto
Part No):	PAR #:	Fault Categ	gory:	NCR: Yes	No DQA :	Date: _	
	Re	solution:	Disposition	1:	QA: N/C Clo	sed:	Date: _	
NCR:			WORK ORDE	ER NON-CONFORMAN	CE (NCR)		
		Description of NC		Corrective Action Section	В	Verification	Approval	Approva
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	QC Inspect

Work Ord December-23-1				*7802	4 *			-			Page 7
Item ID: Revision ID:	D212-664-10			Accept *	N900040	1100)*	Setup	Start	*N:	S1*
Item Name: Start Date: Required Date: Reference:	Crosstube Fwo 23/12/2011 : 17/01/2012	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item ID: Customer:				Stop	*N:	S2*
Approvals:		n:			Date:			Run	Start Stop	*NI *NI	R1* R2*
Sequence ID/ Work Center II 250 *250* QC Quality Control	D	Operation Description QC4- 100% Inspect kits Memo	for completeness	Set Up/ Run Hours 0.00 0.00 Color of M	Tool ID Tool #	Plan Code	Accep Qty	t Rej Qty		Reject Number	Insp. Stamp
260 *260* Packaging Packaging		Packaging Memo Identify and	pack for shipping as per I	0.00 Per H			<u></u>	(11	D		
270 *270* QC Quality Control		QC21- Final Inspection -	Work Order Release	0.00					12	.].]. MF	124

Dart Ae	rospace L	.td	· · · · · · · · · · · · · · · · · · ·						•
W/O:				RK ORDER CHANG	ES				
DATE	STEP	PR	OCEDURE CHAI	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No		PAR #: olution:							
NCR:				ER NON-CONFORMA					
DATE	0755	Description of NC		Corrective Action Secti		Verific	ation	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign Date	& Section		Chief Eng	QC Inspector

Picklist Print

December-23-11 10:05:02 AM

Work Order ID: 78024

78024

Parent Item:

D212-664-101

D212-664-101

Parent Item Name: Crosstube Fwd

Start Date: 23/12/2011

Required Date: 17/01/2012

Page 1

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP Rev:E04.02.16ReformatKJ/DS

IPP Rev:F 06-03-29 Remove Coments on Pick List JLM

IPP Rev:G 07-04-30 As per Rev C

IPP Rev:H

11.04.26 inspection strip ecn 11-549 FC verified by DD

	11.04.26 inspectio	n strip ech 11-549	EC v	erified by:DD									
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D212-664-101TRN		Manufactured	No			110	Each	2.0000	1	1			
D212-664 Crosstube Turning Detail	4-101TF	SN							**				
				Location	!	Loc	<u>Oty</u>	Loc Code					
				LG			2						
				(77416		1		_			•	
D3595-063-450		Manufactured	No	`	77418	230	l Each	74.1095	4	4.210526	Mo	11-12	2-28
D3595-06	20 450	Manaractured	1.0			230	Lucii	74.1075	**	4.210320			
RUBBER CUSHION	7.7-4:70												
				Location	•	Loc (Qty	Loc Code					
				MAT052		74.109	9474						
					67353		2						
					68893		6		_				
					70113		0.56		_				
					71354		0.2		_				
					74113	0.349	9474		_				
				(75597		65			4	/AL	12-01	-10

	rospace Li							
W/O:			WO	RK ORDER CHANGE	S			_
DATE	STEP	PR	OCEDURE CHAI	NGE	Ву	Date Qty	Approval Chief Eng / Prod Mgr	Approva QC Inspector
Part No.		PAR #:	Fault Catao		NCP: You	No. DOA:	Date	
Part NO		PAN #:						
NCR:			_	R NON-CONFORMAN				
				Corrective Action Section				
DATE	STEP	Description of NC Section A	Initial Chief Eng	Action Description Chief Eng	Sign 8 Date	Verification Section C	Approval Chief Eng	Approval QC Inspecto
				<u> </u>				

Picklist Print December-23-11 10:05:02 AM									Page 2
Work Order ID: 78024 . Parent Item: D212-664-101 Parent Item Name: Crosstube Fwd			8024* 9212-664-10	ገ1*			tart Date: 2 Start Qty: 1		Required Date: 17/01/2012 Required Qty: 1.00
MS21920-25 *MS21920-25* Clamp(per MIL-DTL-8783C)	Purchased	No		220	Each	76.0000	4 **	4	
Статруры МПД-БТЕ-6763С)			Location LG050 116264 117998 118142 119339 119746 120054	<u>Lo</u>	76 2 4 4 2 14 50	Loc Code		4	- - - - - - - - - - - - - - - - - - -
*D2893-1 *D2893-1* 2.75 Support	Manufactured	No	# 77606 <u>Location</u> LG052 72865 76250 76928	220 <u>Lo</u>	Each Each 5 2 1 2	5.0000 <u>Loc Code</u>	2 **	2 2	/AL 12-01-10
D3428-1 *D3428-1* Placard	Manufactured	No		240	Each	17.0000	1 **	5	
			Location ST053 76508	<u>Lo</u>	<u>c Oty</u> 17 17	Loc Code		W	
AN6-35A *AN6-35A* BOLT	Purchased	No		240	Each	28.0000	4 **	12/1	his .
			Location ST342 119749	<u>Lo</u>	28 28	Loc Code		y	- -
December-23-11 10:05:02 AM			Shop Pac	ket Print					Page 2

Dart Aerospace L	_td
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W/O:		WORK ORDER CHANGES												
DATE	STEP	PR	PROCEDURE CHANGE					Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector				
					:					•				
Part No					NCR: Yes No DQA: Date:									
	Re	solution:	Dispositio	n:	QA:	N/C CIG	osed:		Date: _					
NCR:			WORK ORD	ER NON-CONFORI	MANCE	(NCR)							
DATE	STEP	Description of NC	Description of NC Corrective Action				verific							
— UAIE	SIEF	Section A	Initial Chief Eng	Action Description Chief Eng	n	Sign & Date	Secti	on C	Approval Chief Eng	Approval QC Inspector				
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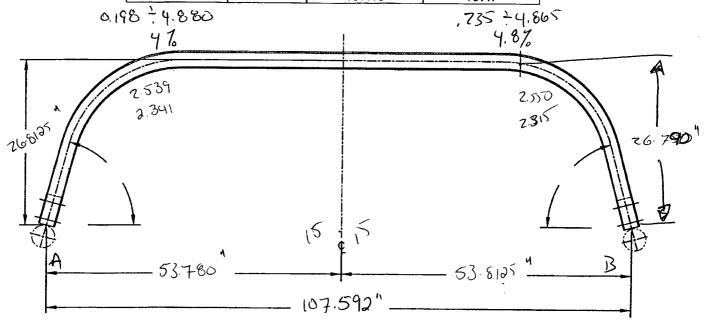
Picklist Print December-23-11 10:05:02 AM									Page 3
Work Order ID: 78024		*78	024*						
Parent Item: D212-664-101			212-664- ²	101*					
Parent Item Name: Crosstube Fwd		1 17	/ 1 / - () () 4 -	1111		Sta	rt Date:	23/12/2011	Required Date: 17/01/2012
							art Qty:		Required Qty: 1.00
AN6-36A	Purchased	No		240	Each	40.0000	4	4 //	
AN6-36A	i dichased				2401		**	7	
			Location	L	oc Oty	Loc Code			
			ST342		40				
			118422		2				-
			119449		1				_
			119749		37			4	_
MS21042L6	Purchased	No		240	Each	1,236.000	6	6/)	
S*MS210421 6*							**	_\$/_	
			Location	Le	oc Qty	Loc Code		ı	
			ST300		1236			-	_
			117677		25			- <u>-</u>	_
			118384		5				-
			118927		48				-
			118968		108				-
			119075		1000				_
ANO(01D(1/ NAC1140D0(/	21 5 1 1		119736	240	50	0.000	1.0	<u></u>	-
AN960JD616 NAS1149D066	3J Purchased	No		240	Each	0.0000	18	18	\cup
~*AN960.JD616*							**	m1190	15 ph/115

Dart Aerospace Ltd	D	art	Aer	osi	pac	e Lto	i
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W/O:			V	ES						
DATE	STEP	PRO	OCEDURE CH	IANGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
										,
									·	, , , , , , ,
						22				
Part No		PAR #:	Fault Ca	tegory:	_ NCF	R: Yes	No DQ	A:	Date:	
	R	esolution:	Disposit	ion:	_ QA:	N/C CI	osed:		Date: _	
NCR:		\	WORK OR	DER NON-CONFORMA	NCE	(NCR)			
DATE	STEP	Description of NC		Corrective Action Secti	on B		Verific	ation	Approval	Approval
DAIE	SIEP	Section A	Initial Chief Eng	Action Description Chief Eng		Sign & Date	Section		Chief Eng	QC Inspector
		·								
			-							
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					;					

DART AEROSPACE LTD	Work Order:	78024		
Description: Crosstube High Fwd (205/212/412)	Part Number:	D212-664-101		
Inspection Dwg: D212-664-141 Rev: D		Page 1 of 1		

Required Dimension	Min	Max
Height	26.79	27.05
1/2 Span	53.59	53.85
Angle	49	52
Total Span	107.18	107.7



	Comments
Sinc A = 4 70	crushing W 15 Passes
Sine 32 4.8%	crushing @ 15 passes
·	
QC15 Inspection	

Rev	Date	Change	Revised by	Approved
Α	07.02.06	New Issue	KJ/JM	
В	07.05.31	Dimensions updated per Dwg Rev C	KJ/JM . s	
С	10.04.01	Dwg Rev updated	KJ SA	12

Dart Aerosp	pace Ltd
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W/O:			W	ORK ORDER CHANG	SES					
DATE	STEP	PR	OCEDURE CH	ANGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No		PAR #:	Fault Cat	egory:	_ NCF	l: Yes	No DQ	A:	Date:	
	Re	esolution:	Disposition	QA:	N/C Cld	sed:	-	Date: _		
NCR:			WORK ORE	DER NON-CONFORM	ANCE	(NCR)			
DATE	0750	Description of NC		Corrective Action Section			Verification			Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng		Sign & Date		ion C	Approval Chief Eng	QC Inspector
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								-	•	
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NOTE	ato & initia	al all entries					1			

H:\fFQRMS\Quality Assurance\approved QA\NCRWO RevE

Item	Qty -141	Qty -141B	Part Number	Description
1	X		D212-664-141	CROSSTUBE ASSEMBLY (205/212/412 HIGH FWD)
2		Х	D212-664-141B	CROSSTUBE ASSEMBLY (214 HIGH FWD)
3	1	1	D6005-128	CROSSTUBE
4	2	2	D2893-1	SUPPORT
5	4	4	D3595-063-450	RUBBER CUSHION
6	4	4	MS21920-25	CLAMP (OR MS21920-26)
7	A/R	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)

GENERAL NOTES:

D

1) MATERIAL: MANUFACTURED FROM D6005-128

FINISHED LENGTH = 126.514±0.020

CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 2) FINISH: PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2 PAINT OUTSIDE PER DART QSI 005 4.2

- TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- UNITS: INCHES UNLESS OTHERWISE NOTED.
- BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- IDENTIFICATION: SCRIBE DART PART NUMBER "D212-664-XXX" AND BATCH NUMBER ON INSIDE OF CUFF USING VIBRATING STYLUS
- WEIGHT: D212-664-141 = 33.6 lbs (PER IIN-D212-664) D212-664-141B = 33.6 lbs (PER IIN-D212-664)
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) RUN CUTTER OFF PART. BLEND OUT EDGE LONGITUDINALY, TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 3 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2893-1 SUPPORT USING 0.03" TO 0.05" THICK LAYER OF MAGNOBOND 6398 TO THE SURFACE OF D2893-1 THAT WILL BE IN CONTACT WITH THE CROSSTUBE PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING
- 13) INSTALL MS21920-25 CLAMPS (OR -26) WITH D3595-063-450 RUBBER CUSHIONS TO SECURE THE D2893-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMPS ARE OPPOSITE OF CROSSTUBE.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

SHOP COPA RETURN TO ENGINFERING UNCONTROLLED COSY SUBJECT TO AMENDMENT WITHOUT NOTICE

WORK ORDER NO. 78024 M. C. J REMOVED FRAM WIDER REVIEW PER

UNDER REVIEW BON #11-614

11/12/23

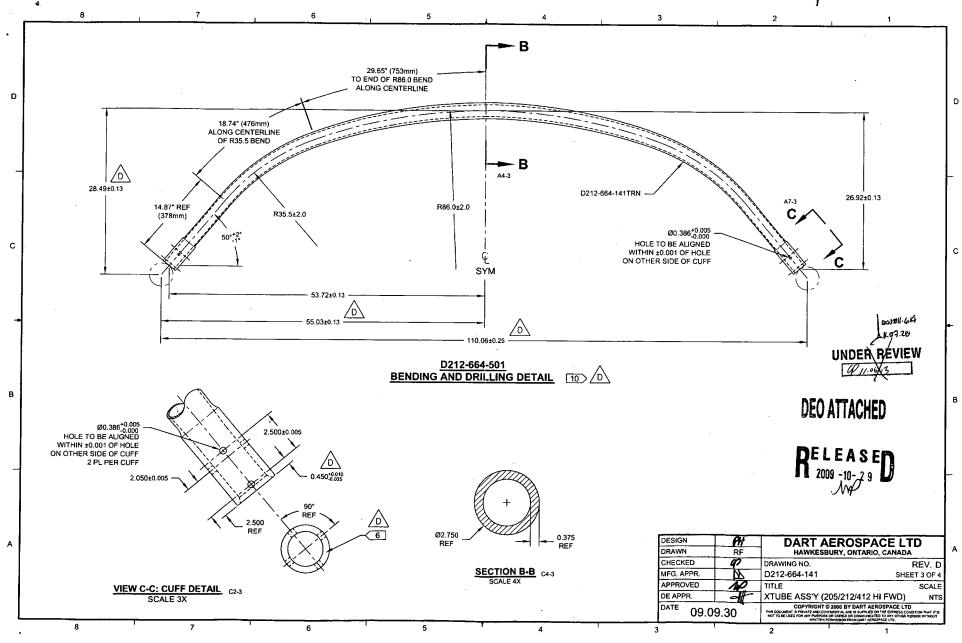
DEO ATTACHED

REFORMAT/REVISE GENERAL NOTES/PART LIST; 09.09.30 REORGANIZED VIEWS AND REFORMATTED DRAWING TO CURRENT STANDARDS; ADD -141B (ZN B4-2, D4-2); REMOVED REF & ADD TOLERANCES (ZN B4-3, C6-3, C8-3 & B6-3); RELOCATED FLAG #6 PER PAR 08-046 (ZN A5-3); MOVED TURNING DETAIL & UPDATED TOLERANCE TO REMOVE -851 ABRASION STRIP; ADD MAGNOBOND 07.03.08 PH 6398, CUSHION, REVERSE CLAMPS ADD HOLES FOR COMPATABILITY WITH BHT/AA PH 05.02.04 SKIDTUBES **NEW ISSUE** Α PH 00.12.12 REV. DESCRIPTION BY DATE DESIGN PH DART AEROSPACE LTD DRAWN HAWKESBURY, ONTARIO, CANADA RF CHECKED DRAWING NO. REV. D MFG. APPR. D212-664-141 SHEET 1 OF 4 APPROVED TITLE SCALE DE APPR. XTUBE ASS'Y (205/212/412 HI FWD) NTS COPYRIGHT @ 2000 BY DART AEROSPACE LTD 09.09.30

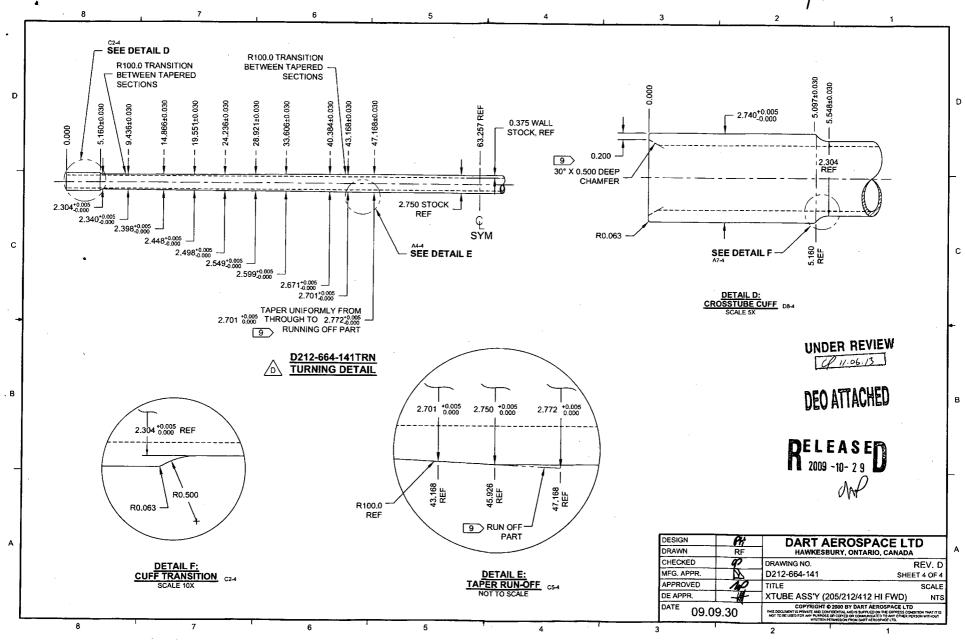
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			Chief Eng	Chief Eng		Date				

12 13 15 D2893-1 SUPPORT MS21920-25 CLAMP, 2X D3595-063-450 RUBBER CUSHION, 2X D - 14.00 (-141) OR 13.75 (-141B) 2 PL D212-664-501 BENT TUBE DCN#11-614 1.07.20 UNDER REVIEW SYM D212-664-141/-141B ASSEMBLY DETAIL DEO ATTACHED D2893-1 SUPPORT, REF 12 APPLY MAGNOBOND -BETWEEN D2893-1 AND CROSSTUBE D3595-063-450 RUBBER CUSHION UNDER CLAMP, REF 13 15 DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DESIGN MS21920-25 CLAMP, REF DRAWN RF CHECKED DRAWING NO. REV. D SECTION A-A D5-2 MFG. APPR. D212-664-141 SHEET 2 OF 4 APPROVED TITLE SCALE DE APPR. XTUBE ASSY (205/212/412 HI FWD) DATE COPYRIGHT © 2000 BY DART AEROSPACE LTD 09.09.30

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DRAWING NO.	TITLE		REV. D	DART AEROSPACE LTD	D.E.O. NO.	SHEET NO.	SCALE
D212-664-1	11 XTUBE AS	SY (205/212/4	112 HI FWD)	ENGINEERING ORDER	D212-664-141-D-1	SHEET 1 OF 2	NTS
DRAWN	بالم	CHECKED	P	MFG. APPR. &	APPROVED NA	DE APPR.	
DATE 1	1.04.07	DATE	1), 0/, 1)	DATE ((.04.12	DATE 11/04/12	DATE 11.04.12	_

PURPOSE:

ADD AN INSPECTION WINDOW TO UNDERSIDE OF CROSSTUBE.

CHANGE:

NOTES 2 OF SHEET 1 IS AMENDED AS FOLLOWS:

<u>IS:</u>

2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2

MASK UNDERSIDE OF CROSSTUBE AS SHOWN (HATCHED AREA) AND

PAINT OUTSIDE PER DART QSI 005 4.2 REMOVE MASKING AND APPLY CLEAR COAT

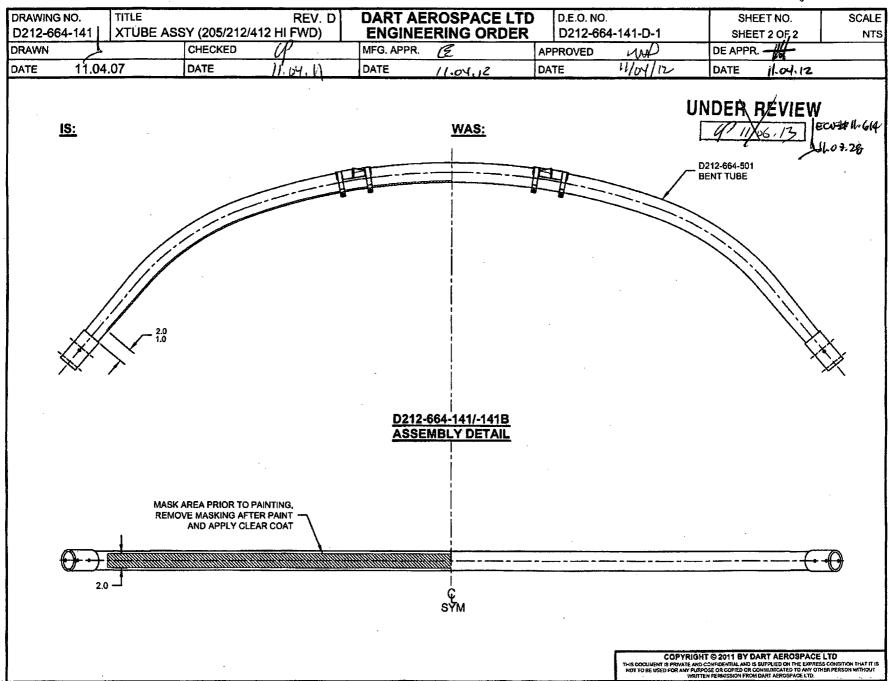
WAS:

2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2

PAINT OUTSIDE PER DART QSI 005 4.2

Dart Ae	rospace	e Ltd	-						•
W/O:	-		****	RK ORDER CHANGES					
DATE	STEP	PR	OCEDURE CHAI	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
Part No		PAR #:							
Resolution:			Disposition	Date:					
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		Description of NC		Corrective Action Section 8	3	Verifica	etion	Approval Chief Eng	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section			QC Inspector
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Dart Aerospace Ltd **WORK ORDER CHANGES** W/O: Approval Approval DATE STEP **PROCEDURE CHANGE** Ву Qty Date Chief Eng / QC Inspector Prod Mgr Part No: ______ PAR #: ____ Fault Category: _____ NCR: Yes No DQA: ____ Date: ____ Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____ WORK ORDER NON-CONFORMANCE (NCR) NCD.

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DRAWING NO.	TITLE REV. D	DART AEROSPACE LTD	D.E.O. NO.	SHEET NO.	SCALE
D212-664-141	CROSSTUBE ASS'Y (205 HI FWD)	ENGINEERING ORDER	D212-664-141-D-2	SHEET 1 OF 1	NTS
DRAWN [/	CHECKED A>S	MFG. APPR.	PPROVED M	DE APPR.	
DATE 11.0	7.15 DATE 11.07.20	DATE 11.07.21 D	ATE 11/07/21	DATE 11.07.21	

PURPOSE:

REPLACE MAGNOBOND WITH PROSEAL.

CHANGE:

IS:

item	Qty -141	Qty -141B	Part Number	Description
7	A/R	A/R	PROSEAL 890 B-2	SEALANT, AMS-S-8802 CLASS B-2

WAS:

7	A/R	A/R		ROCKWELL SPECIFICATION RBO-120-023
l	ĺ		· .	ADHESIVE (TEXTRON/BELL SPEC. 299-947-100,
<u></u>				TYPE II, CLASS 2 ADHESIVE)

NOTE 12 & 15, SHEET 1 IS AMENDED AS FOLLOWS:

19

- 12) TO INSTALL D2893-1 SUPPORT: ABRADE MATING SURFACE OF SUPPORT AND CROSSTUBE WITH 180-GRIT SANDPAPER AND REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY A 0.04" TO 0.07" THICK LAYER OF PROSEAL 890 CLASS B-2 (OR AMS-S-8802 CLASS B-2) SEALANT TO MATING SURFACE OF SUPPORT.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING. PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER PROSEAL 890 SEALANT HAS CURED FOR 72 HOURS.

WAS:

- 12) INSTALL D2893-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 TO THE SURFACE OF D2893-1 THAT WILL BE IN CONTACT WITH THE CROSSTUBE PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.



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Daily Time Report

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LIQUID PENETRANT TEST REPORT

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that all descriptions, comments and expr representations or warranties. Acuren C data or other information provided by A Standard of Care	perform services extends only to those services provided fo essions of opinion reflect the opinions or observations of A froup Inc. is not assuming any responsibilities of the owne, curen Group Inc. In no event shall Acuren Group Inc.'s lia uren Group Inc. uses the degree, care and skill ordinarily e. Group Inc.	curen Group Inc. based on information and assump loperator and the owner/operator retains complete bility in respect of the services referred to herein exc	nions supplied by the owner/operator and are not inte responsibility for the engineering, manufacture, repo ceed the amount paid for such services.	ended nor can they be construed as iir and use decisions as a result of the
CLIENT REPRESENTATIVE	Andrew Sheldon	Wheller	DTR# Es	14.217
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